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(54) Title: METHOD AND SYSTEM FOR REAL TIME REMOTE ONLINE PARTICIPATION IN AUCTIONS

(57) Abstract: The method comprises the steps of: receiving on a web platform a plurality of real time bids sent to said platform through the web by a plurality of online bidders; processing said bids to determine in real time the upper bid value received from the online bidders, transmitting said real time upper bid value to a cyberclerk which participates to the live auction and which bids in real time on behalf of the online bidder to which said upper bid value corresponds against the live bidder(s) participating to the live auction. The system enables the processing of the method.

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METHOD AND SYSTEM FOR REAL TIME REMOTE ONLINE PARTICIPATION IN AUCTIONS

FIELD OF THE INVENTION AND GENERAL BACKGROUND

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The present invention concerns auctions on the web.

Using leading-edge technology, the invention permits to broadcast auctions live on the Web. It allows web users to participate in real time in auctions filmed for live broadcast on the Internet.

10   It has already been proposed in particular in WO 00/34899 a system in which, during a live auction, a bid may be accepted from a remote online bidder which has access to the bid through an online environment.

However, in the system as proposed in WO 00/34899, the bidding information which is sent by the online bidder only consists in a bid which

15   reflects a maximum price the online bidder is willing to pay on the item.

The bidding which takes place on behalf of the online bidder corresponds to amounts which exceed the live current bid so long the maximum proxy price given by the online bidder has not been exceeded.

Such a system does not permit the participation in real time of

20   online bidders to live auctions.

BRIEF SUMMARY OF THE INVENTION

The invention permits to provide a service for traditional auction

25   houses and their professional and private clients, who are given the opportunity to participate in sales from afar, as if they were in the saleroom itself. The sales proceed in the conventional way, following conditions defined by the auctioneer. All items put up for auction over the Internet by way of a video broadcast, are subject to the auction houses' fixed terms of

30   sale.

As such, the invention is neither an online auction website nor a virtual electronic saleroom offering bidding on lots over several days.

More particularly, the invention proposes a method and a system as herein after defined in the claims.

Further details and advantages of the invention are presented in the description which follows and which is not intended to be limiting.

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DESCRIPTION OF THE DRAWINGS

- figure 1 illustrates a general possible architecture for a system according to the invention,

10 - figure 2 illustrates a possible embodiment for the architecture of figure 3,
- figures 3 and 4 illustrate other possible architectures for a system according to the invention,
- figure 5 illustrates an example of a possible screen for an online bidder,
- figure 6 illustrates an example of a possible screen for the cyberclerc,.

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DESCRIPTION OF VARIUOUS POSSIBLE EMBODIMENTS

General :

20   Prior to an auction, the web user can :

- browse the sale catalogue containing descriptions and photographs of the lots

- download a video clip of the pre-sale exhibition and saleroom (called the "exhibition tour")

25   - register to bid in the sale

The invention provides the auction house with a "cyber-clerk", the site's equivalent of the auction house clerk who receives telephone bids in the saleroom. The cyber-clerk is given a laptop which he/she uses to transmit bids from the saleroom to the web users, and video equipment with

30   which he/she films the sale for its live broadcast over the Internet. In this way, the web user is able to follow the sale in real time from his computer.

Web users wanting to bid must register in the sale on the site prior to the day of the sale.

The system proposed has the capacity to broadcast several sales simultaneously.

Registering.

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Clients.

In order to participate in bidding, the web user must enter a username and password (which he/she chooses on becoming a member) and provide the site with his/her bank details which will act as a guarantee

10   for the auction house.

No transaction is made on the site. Payment for purchases is settled directly with the auction house.

In the case of "art" sales, the auction house requires the web user's bank details which allow them to verify his/her credit status.

15   With a first possible system, in order to guarantee the auction houses payment security, the system requested web users to specify the lots on which they wished to bid live. The web user is required to register in the sale every time he/she selected a lot on which he/she wished to bid live or leave an absentee bid. In this way, the auction house is guaranteed of

20   the bidder's payment for each lot on which he/she wished to bid, prior to the sale.

In order to facilitate the registration process and in order to give the Internet bidder greater purchasing possibilites, registration system "for the whole sale" can be contemplated, which allows the web user to bid at any

25   moment during a sale. His/her bank details are still required when registering as a guarantee for the auctioneer.

In the case of "industrial" sales , the user has the possibility of registering "for the whole sale." The bank guarantee system for these sales, however, is more complex than that required for art sales.

30   There are different types of bank guarantee. The following two examples are currently used most frequently on the site :

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1/ The bank guarantee : the Internet bidder's bank forwards the auction house the bank guarantee form that the Internet bidder has printed out from the site, which guarantees the user's purchases up to a certain amount.

5   The auction house then informs the system of the maximum amount up to which the internet bidder is allowed to bid (above or equal to the bank guarantee).

The system registers this amount above which the user is unauthorized to bid. This is known as the "maximum bid."

10   2/ Payment from a fixed down payment: the user deposits a sum of money (previously defined by the auction house) into an account opened specially for the sale. The total amount of the purchases is deducted from this sum.

15   Back-office tools.

Each time a user registers to bid in a sale, the name of the sale for which he/she is registered appears in red in the administration tool, thereby indicating that there is another new user wishing to bid live or leave absentee bids. His/her personal details and banking information are

20   forwarded immediately by fax to the auction house.

The user has a waiting status. He/she will only be allowed to bid if the auction house authorizes his/her participation in the sale. The auction house sends a written agreement addressed to the system managers by fax. If the auction house agrees, the user is saved in "yes." He/she is then

25   acknowledged by the bidding system and authorized to bid on the day of the sale.

If the auction house refuses the user, he/she is saved in "no" and is not acknowledged by the bidding system. He/she is therefore not authorized to bid on the day of the sale.

30   Several other functions can be contemplated.

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One of these permits users whose participation in the sale has been refused or who have not been confirmed by the time a sale begins to watch the sale live on the client application, without being able to bid.

Another function permits users to change their status during the
5   sale and thus to bid.

Finally, a "post-sale" function allows auctioneers to re-enter items in an auction. After the sale, users will thus have another chance to register and bid..

10   How the bidding system works

The system of bidding in real time is based on an application on the client's side, an application on the server's side, and an application on the cyber-clerk's side.

The day of the sale, the user whose participation has been
15   authorized by the auction house clicks on "today's sale" followed by "bid live." He/she must then enter his/her username and password to access the bidding screen.

Once bidding on the lot has begun, the bidding screen (as in figure 1) displays four pre-set suggested bids so that the bidder can react more
20   quickly and keep up with the pace in the saleroom. These amounts are determined according to a percentage system calculated from the starting price and updated each time a new bid is placed.

The bidder can receive messages from the cyber-clerks.

As the Internet bidder places his/her bids, "For you" and "Against
25   you" appear on the bidding screen. If his/her's is the final bid, "Sold to you" appears on his/her screen; if the lot has been sold to someone in the saleroom, "Sold (saleroom)" appears.

The client's application works in the same way as the cyber-clerk's: to retrieve bids, the application consults the database as quickly as possible
30   via the web server.

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Example of a first possible architecture

A possible architecture for a bidding system is illustrated in figure 1.

In such a system, a platform works with :

- an application 1 on the client's side, allowing the client to bid live.

5   - an application 4 on the cyber-clerk's side, allowing him/her to transmit the bids placed in the saleroom to Internet users.

- webclasses on web servers 2 to connect the various applications to the database.

- a database 3 to back-up and centralize information related to the bids.

10   With the system as shown on figure 1, the application on the client side permits to transmit the bids of the client to the database through the web servers 2, whereas the cyber-clerk 4 transmits the bids of the saleroom to the database 3 through the web servers 2.

The status of the bids in the sale room and on line can be known

15   from the online bidders through requests for information sent to the data base to the web servers.

Also, the status of the online bids is known from the cyberclerk through requests for information sent to the data base to the web servers.

However, there were several problems associated with this system :

20   - Problems with functions on the cyber-clerk's side

- Scalability problems

- With the original architecture, the only way to know if a new bid had been made was to check constantly with the database.

Furthermore, the greatest concern on the client's side is speed.

25

Example of an other improved architecture

To deal with scalability problems, a new architecture of the type represented on figure 2 is proposed. This is an entirely redundant architecture assuring maximum security.

30   This new hardware architecture allowed a new software architecture to be put into place, improving and reinforcing our bidding system.

On the back-office side, the centralization of information no longer takes place on the database but on a web server, which reduces the number of transactions needed between the database and web servers.

On the front office side, a system of push servers has been
5   implemented thanks to the use of applications on the server's side. The client no longer needs to look for information; it will be sent to him/her.

The system is based on two applications on the server's side: the subclerk and the superclerk.

Each server has one subclerk instance, and only one of the servers
10   has a superclerk instance.

The subclerks transmit the clients' information to the superclerk. The superclerk centralizes the information it receives from the subclerks and saves it in the database.

In fact, the superclerk is present in "sleep mode" on all the machines
15   in order to take over in the event of a technical problem on the server housing the superclerk. Thanks to this architecture the system is redundant (in the event of a technical problem another machine takes over) and features load balancing.

This architecture permits to clients on the web to exchange with a
20   cyberclerk through a succession of various levels comprising routers 6, hubs 7, load balancers 8, switches 9 and http servers (web farm 10), each level being designed redundantly so as to permit to bypass one element if it happens to fail.

On the back office side, the http servers are connected to redundant
25   databases 15 through various levels comprising firewalls 11, switches 12, load balancers 13, as well as various hubs 14 and clustered servers 16 connected to the databases, each level being redundantly designed, the various elements being connected so as to permit to bypass one element if it happens to fail.

30   With such an architecture, the exchanges are as explained on figure 3.

The cyberclerc transmit to the servers (web farm 10) the saleroom bids.

8

Said saleroom bids are directly transmitted by the servers to the client's side without any need for the online client to send any request for this information (push technology).

The bids from the on line clients are sent through the web to the
5   web farm 10 where they are more particularly treated as can be seen on figure 4.

The various on line clients are connected through the web to various http servers (web 1, 2, 3) integrating various subclerk machines 17 between which the connections of the clients are dispatched

10   Each subclerk machine treats the various bids it receives from the clients to which it is connected to determine among those bids the one which corresponds to the real time upper bid.

The real time values thus determined are sent to a superclerk machine 18 which itself determines among the various bids values it
15   receives from the various subclerk machines the one which corresponds to the upper bid value. This bid value is the one which is sent in real time to the cyberclerk.

The cyberclerk thus receives in real time a bid value which corresponds in real time to the actual upper bid value among the various
20   bids received from the on line bidders by the web farm.

This real time upper bid value is displayed on the cyberclerk screen, said cyberclerk bidding in real time in the sale room with this value.

In parallel, all the bids received by the web farm 10 from the various on line clients are sent in real time to the databases, which store all
25   information as to said bids (bid amount, time at which it has been received at the web farm, reference of the on line client corresponding to said bid etc.)

The databases also store all the information which is sent from the cyberclerk to the on line clients.

30   As will be readily understandable, such an architecture permits high capacity and availability of the machines, with a maximum security.

It permits to minimize the traffic and allows more clients to be served simultaneously, thereby accelerating the transmission of the data.

Various buttons and functions on the screens

5   One of the primary aims of the development was to improve the system's interactivity. For complex sales such as industrial sales, it is necessary to inform the client in real time of any last minute changes made to the purchasing conditions, such as united lots, buyer's choice options, lot combinations and withdrawn lots.

10   A mini-chat system allows the Internet bidder to be warned in real time of any number of complex situations that may arise and to initiate a dialogue to remain apprized of his/her choices.

        • The messages :

        - the cyber-clerk is able to write messages that are displayed at the
15 top of the client's application.

        - the cyber-clerk is able to ask the clients questions by way of pop-ups and to await their replies. All connected users, or just one client in particular, may be asked any given question.

        - the cyber-clerk is able to send urgent pop-up messages that do
20 not require a reply to all clients or any one client in particular.

        • Information buttons :

        On the application on the client's side :

25   The screen to which the client has access during a real time auction is for example of the type represented on figure 5.

        It gives to the client a reference of the sale which takes place, the value of the real time bid in the auction room.

        It also displays four buttons corresponding to four possible bid
30 incrementations.

10

Through one click on such a button, a corresponding bidding information is transmitted from the on line bidder application to the web farm and treated in the web farm as exposed herein above.

Many other buttons also appear on the on line bidder screen :

5   "interested" : if the user clicks on this button he/she indicates to the cyber-clerk that he/she hopes to bid on this lot, allowing the cyber-clerk to manage the bid more efficiently.

For industrial sales, when the starting price is announced, the user can indicate if he/she is a taker at the given price of if he/she wishes to offer

10   a lower price.

On the cyber-clerk's screen :

On the cyberclerk's screen, the cyberclerk is presented with zones

15   where it can introduce the current bids in the saleroom.

Pre incremented buttons can be used to permit quick exchanges.

Other buttons are as follows :

- "lot grouping": by clicking on this button the cyber-clerk informs the user that several lots are being sold together. When he/she clicks on this

20   button, the cyber-clerk indicates the numbers of the lots to be sold together.

- "buyer's choice": a certain number of similar lots may be sold for the same price multiplied by the number of lots sold together, as is often the case during wine sales, for example. This is what is known as buyer's

25   choice option. The successful bidder is the one who offers the highest price per lot. This is why, when the bid is made, it is necessary to ask the bidder how many lots he/she wishes to purchase and at what price. The "buyer's choice" button asks the bidder "how many would you like ?"

30   - "combination": in some cases several lots together comprise "a whole" for example the five elements of an editing system. Each piece is sold separately; however, at the end of the bidding the auctioneer opens

bidding for the ensemble (total price of individual lots plus 10%), and the final bidder is the successful one.

The combination button indicates a combination.

5   - "withdrawn lot": it is sometimes the case that lots are withdrawn from a sale and that the auctioneer does not announce this until the moment the lot would have been put up to auction. Using this button, the cyber-clerk can explain the absence of this lot to the Internet bidder.

10   - "unsold lot": if a lot fails to reach the minimum price fixed by the seller, it is deemed "unsold." In certain cases, these unsold lots are put up to auction again at the end of the sale. It is therefore important to be able to forewarn the Internet bidder that he/she may have the option to bid again on this lot at the end of the sale.

15

      - "going once": this button enables the cyber-clerk to warn the user that the bidding is coming to a close and that he/she must act quickly if he/she hopes to acquire this lot.

20   Furthermore, the cyber-clerk's screen also has 4 bidding increment choices, allowing the Internet bidder to keep up with the pace in the saleroom. These increments depend on the value of the items for sale; for example, they may increase by intervals of 20 for post cards, or by intervals of 10,000 for industrial equipment.

25

       Absentee bids : the autobid

       Absentee bids are managed automatically by a servlet. This servlet behaves exactly like the client. When there are several absentee bids on
30   the same lot, the autobid automatically increases by increments until it bypasses or equals the lowest absentee bid.

12

The absentee bid's maximum amount has been entered by the user on his/her bidding card prior to the sale. He/she may have chosen to take advantage of the "one additional bid" option; in this case, the autobid proposes a further bid of a higher amount than the amount given. This is
5   common practice in the saleroom and has thus been reproduced identically on the Internet.

REVENDICATIONS

1. A method comprising the steps of :

- receiving on a web platform a plurality of real time bids sent to said
5   platform through the web by a plurality of online bidders ;

- processing said bids to determine in real time the upper bid value received from the online bidders,

- transmitting said real time upper bid value to a cyberclerk which participates to the live auction and which bids in real time on behalf of the

10 online bidder to which said upper bid value corresponds against the live bidder(s) participating to the live auction.

2. A method according to claim 1, wherein the cyber clerk sends in real time to the web platform information as to the bids of the live bidders and

15 wherein a corresponding information is sent in real time by the web platform to the online bidders.

3. A method according to any of the preceding claims, wherein an interface on an online bidder side and/or on the cyberclerk side displays a plurality of

20 buttons corresponding to a plurality of bid incrementations, the bidders and/or cyber clerk sending real time bid information to the web platform through selecting one of said buttons through said interface

4. A method according to any of the preceding claims, wherein the bidding

25 information sent to the web platform by the bidders and/or the cyberclerk are sent in real time by said web platform to at least a data base where it is stored.

5. A method according to any of the preceding claims, wherein the web

30 platform to which the on line bidders are connected comprises a plurality of subclerk machines between which the connections of the clients are dispatched and wherein each of said machines determines in real time the bid which corresponds to the real time upper bid, among the bids it receives

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from the online bidders with which it is connected, the various upper bids thus determined by the various machines being sent in real time to a superclerk machine which itself determines among the various bids values it receives from the various subclerk machines the one which corresponds to
5   the upper bid value, this upper bid value being the one which is sent in real time to the cyberclerk.

6. A method according to any of the preceding claims, wherein the cyberclerk broadcasts in real time alphanumeric messages to the online
10 bidders.

7. A system for processing the method according to any of the preceding claims, comprising :
- a web platform adapted to receive a plurality of real time bids sent to said
15 platform through the web by a plurality of online bidders ;
- processing means for processing said bids to determine in real time the upper bid value received from the online bidders,
- means for transmitting said real time upper bid value from the web platform to a cyberclerk interface, the cyberclerk participating to the live
20 auction and bidding in real time on behalf of the online bidder to which said upper bid value corresponds against the live bidder(s) participating to the live auction.

8. A system according to claim 7, wherein the cyber clerk interface is
25 adapted to the sending in real time to the web platform of information as to the bids of the live bidders and wherein a corresponding information is sent in real time by the web platform to the online bidders.

9. A system according to claims 7 or 8, wherein an interface on an online
30 bidder side and/or on the cyberclerk side comprises means to display a plurality of buttons corresponding to a plurality of bid incrementations and means permitting the on line bidders and/or the cyber clerk to select one of

15

said buttons through said interface in order to send sending real time bid information to the web platform.

10. A system according to any of claims 7 to 9, wherein the bidding
5   information sent to the web platform by the bidders and/or the cyberclerk are sent in real time by said web platform to at least a data base where it is stored.

11. A system according to any of claims 7 to 10, wherein the web platform
10 to which the on line bidders are connected comprises a plurality of subclerk machines between which the connections of the clients are dispatched and wherein each of said machines determines in real time the bid which corresponds to the real time upper bid, among the bids it receives from the online bidders with which it is connected, the various upper bids thus
15 determined by the various machines being sent in real time to a superclerk machine which itself determines among the various bids values it receives from the various subclerk machines the one which corresponds to the upper bid value, this upper bid value being the one which is sent in real time to the cyberclerk.
20

12. A system according to any of claims 7 to 11, wherein an interface on the cyberclerk side is adapted to the broadcasting in real time of alphanumeric messages to the online bidders.
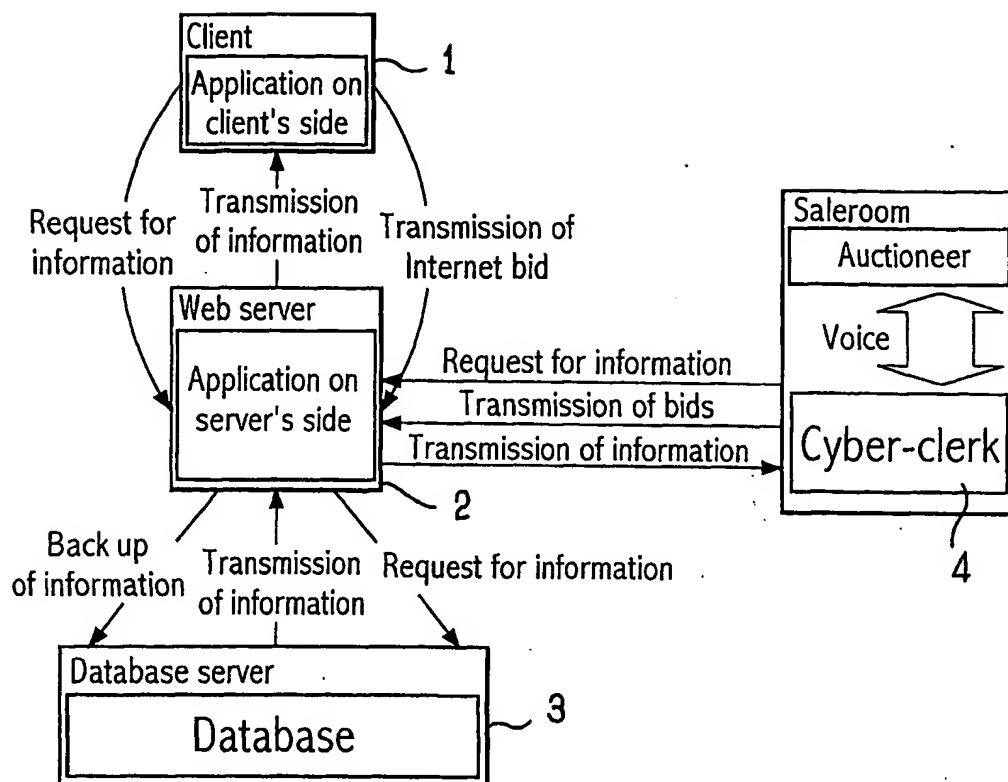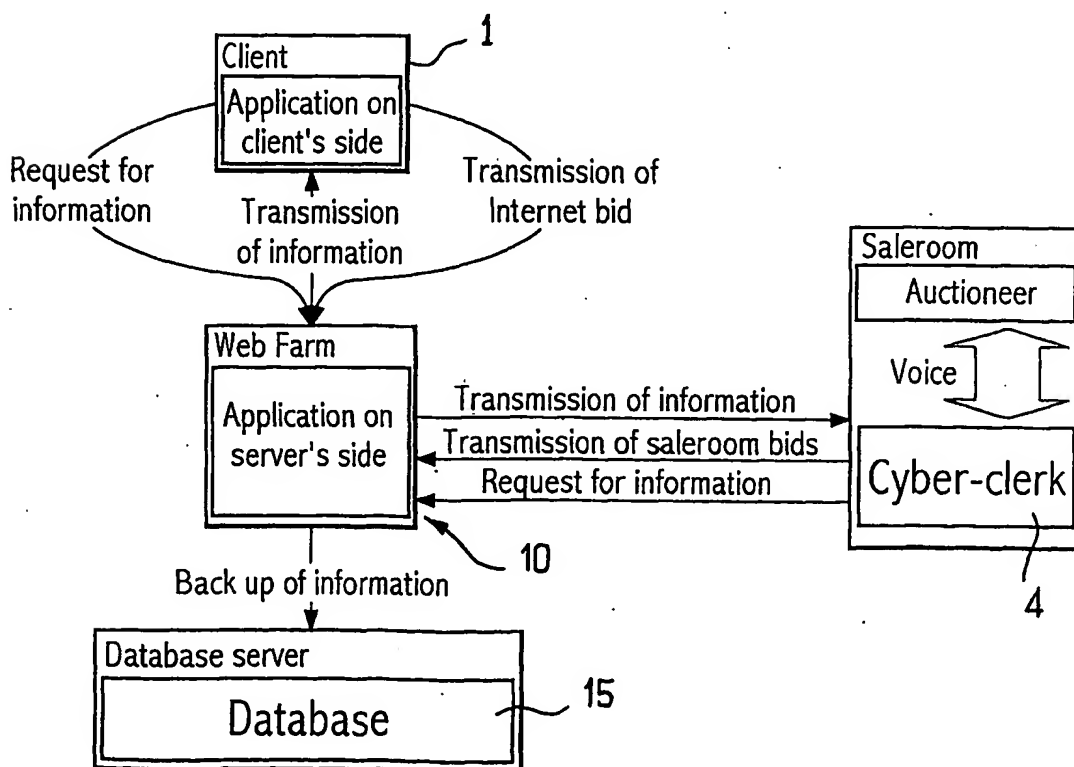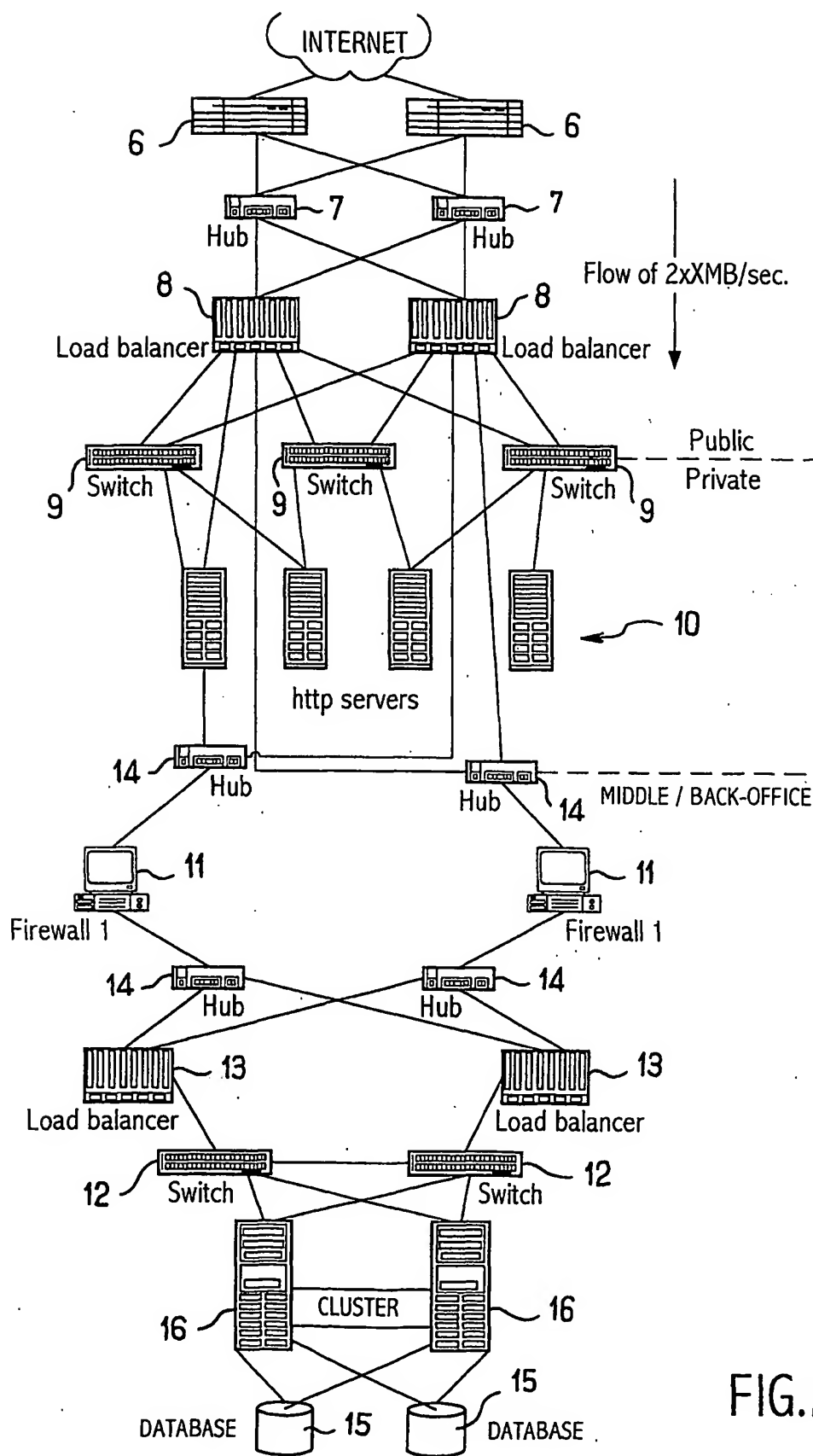
25

30

1 / 5

FIG.1

FIG.3

2 / 5

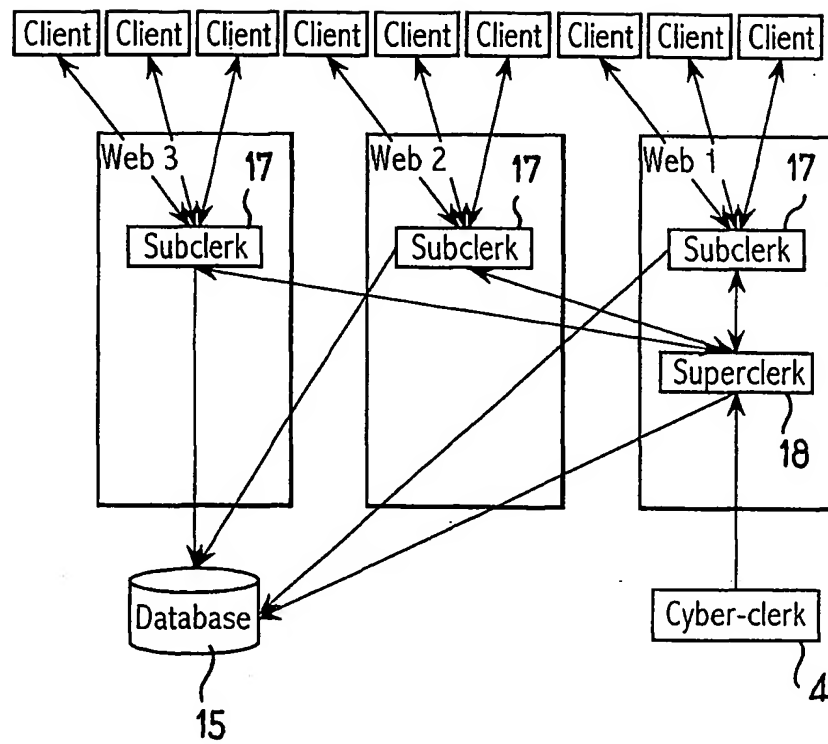
FIG.2

FIG.4

Fichier Edition Affichage Favoris Outils

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FIG.5

FIG.6

Ventes | Débuter | Arrêter

mess gén ○ mess per ○ ques per ○ ques gén

Serveur | Colt art serveur 1

Zone 1 | □ no sound

Groupement | Retiré | Invendu | Réunion

start

Niveau d'enchère ◉ 1 ○ 2 ○ 3 ○ 4

□ Faculté de réunion

going once

Marteau